

### **Amendments to the Claims**

This listing of claims will replace all prior versions, and listings of claims in the application:

#### **Listing of Claims:**

Claim 1 (Canceled)

Claim 2 (Previously Presented): A ferroelectric capacitor comprising:

a bottom electrode;

a plurality of projection electrodes formed on the bottom electrode;

a ferroelectric layer formed on the bottom electrode and the projection electrodes; and

a top electrode formed on the ferroelectric layer,

wherein a thickness of the ferroelectric layer on the projection electrodes is less than a thickness of the ferroelectric layer on the bottom electrode, and

wherein spacing between central portions of each projection electrode has a range from 10% to 20% of a size of the ferroelectric capacitor.

Claim 3 (Previously Presented): A ferroelectric capacitor comprising:

a bottom electrode;

a plurality of projection electrodes formed on the bottom electrode;

a ferroelectric layer formed on the bottom electrode and the projection electrodes; and

a top electrode formed on the ferroelectric layer,

wherein a thickness of the ferroelectric layer on the projection electrodes is less than a thickness of the ferroelectric layer on the bottom electrode, and

wherein a size of each projection electrode has a range from 5% to 10% of a size of the ferroelectric capacitor.

Claim 4 (Withdrawn): The ferroelectric capacitor of claim 2, wherein the top electrode includes a plurality of second projection electrodes, each of the plurality of second projection electrodes facing respective ones of the plurality of projection electrodes.

Claim 5 (Withdrawn): The ferroelectric capacitor of claim 2, wherein the projection electrodes are made of bismuth or bismuth alloy.

Claim 6 (Withdrawn): The ferroelectric capacitor of claim 5, wherein the bottom electrode is made of a metal which includes bismuth.

Claim 7 (Currently Amended): A ferroelectric capacitor comprising:

a bottom electrode;

a plurality of projection electrodes formed on the bottom electrode;

a ferroelectric layer formed on the bottom electrode and the projection electrodes; and

a top electrode formed on the ferroelectric layer,

wherein the projection electrodes are arranged spaced apart from each other evenly, and

wherein a thickness of the ferroelectric layer on the projection electrodes is less than a thickness of the ferroelectric layer on the bottom electrode, so that cores of polarization inversion within the ferroelectric layer extend from the projection electrodes and wherein the projection electrodes are arranged evenly spaced on the bottom electrode.

Claim 8 (Previously Presented): The ferroelectric capacitor of claim 2, wherein the bottom electrode and the projection electrodes are made of a same material.

Claims 9 – 14 (Canceled)

Claim 15 (Currently Amended): A ferroelectric capacitor comprising:

a first electrode;

a second electrode;

a plurality of third electrodes on the first electrode and spaced apart from each other evenly; and

a ferroelectric layer ~~which is sandwiched between the first electrode and the second electrode, and on the third electrodes~~[[;]] ~~and a plurality of third electrodes formed evenly spaced between the first electrode and the second electrode, wherein the third electrodes generate polarization,~~

wherein a thickness of the ferroelectric layer on the third electrodes is less than a thickness of the ferroelectric layer on the second electrode, so that cores of polarization inversion within the ferroelectric layer extend from the third electrodes.

Claims 16-17 (Canceled)

Claim 18 (Currently Amended): The ferroelectric capacitor of claim [[16]] 15, wherein the first electrode and the third electrodes are made by a same material.

Claim 19 (Withdrawn-Currently Amended): The ferroelectric capacitor of claim [[16]] 15, further comprising additional ~~wherein the third electrodes are formed on~~ [[both]] the first ~~and second electrodes.~~

Claim 20 (Withdrawn): The ferroelectric capacitor of claim 3, wherein the top electrode includes a plurality of second projection electrodes, each of the plurality of second projection electrodes facing respective ones of the plurality of projection electrodes.

Claim 21 (Withdrawn): The ferroelectric capacitor of claim 3, wherein the projection electrodes are made of bismuth or bismuth alloy.

Claim 22 (Withdrawn): The ferroelectric capacitor of claim 21, wherein the bottom electrode is made of a metal which includes bismuth.

Claim 23 (Previously Presented): The ferroelectric capacitor of claim 3, wherein the bottom electrode and the projection electrodes are made of a same material.

Claim 24 (Withdrawn): The ferroelectric capacitor of claim 7, wherein the top electrode includes a plurality of second projection electrodes, each of the plurality of second projection electrodes facing respective ones of the plurality of projection electrodes.

Claim 25 (Withdrawn): The ferroelectric capacitor of claim 7, wherein the projection electrodes are made of bismuth or bismuth alloy.

Claim 26 (Withdrawn): The ferroelectric capacitor of claim 25, wherein the bottom electrode is made of a metal which includes bismuth.

Claim 27 (Previously Presented): The ferroelectric capacitor of claim 7, wherein the bottom electrode and the projection electrodes are made of a same material.